Social Norms in Cinema: A Cross-Cultural Analysis of Shame, Pride and Prejudice

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Abstract

Shame and pride are social emotions expressed across cultures to motivate and regulate people's thoughts, feelings, and behaviors. In this paper, we introduce the first cross-cultural dataset of over 10k shame/pride-related expressions, with underlying social expectations from 5.4K Bollywood and Hollywood movies. We examine how and why shame and pride are expressed across cultures using a blend of psychology-informed language analysis combined with large language models. We find significant cross-cultural differences in shame and pride expression aligning with known cultural tendencies of the USA and India – e.g., in Hollywood, shame-expressions predominantly discuss *self* whereas shame is expressed toward others in Bollywood. Women are more sanctioned across cultures and for violating similar social expectations.

1 Introduction

Shame and pride are social emotions expressed across cultures to motivate and regulate people's thoughts, feelings, behaviors, achievements, and social adaptations (Fischer and Tangney, 1995; Goetz and Keltner, 2007; Fessler, 2007; Schaumberg and Skowronek, 2022). The expressions and appraisals of shame and pride vary across cultures and is a research question of great significance to understand society and self-regulation (Wong and Tsai, 2007; Lewis et al., 2010; Wegge et al., 2022). The overarching question we ask in this paper is, how and why shame and pride are expressed across cultures. Knowing cross-cultural differences in shame/priderelated expressions will help us measure psychological constructs such as shame proneness (Tangney et al., 1992; Cohen et al., 2011) and self-esteem (Pyszczynski et al., 2004) reliably from language - enabling effective human-computer interactions in domains such as AI-driven psychotherapy (Resendiz and Klinger, 2023; Demszky et al., 2020). Examining behaviors evoking shame and pride will

And should we bow before others begging....them to marry our daughters? This shall not happen. Neither will the girls be alive here nor shall....we be ashamed of ourselves. You cannot kill the life which God has given. I won't let you commit the sin.

 \Rightarrow Not able to marry off their daughters evokes shame.

Sister-in-law! Congrats, sister-in-law! Big brother has started working! Really?

Now you will have a place of pride in this family! Yes, please!

⇒ Employed husband evokes *pride*

Table 1: Excerpts of dialogues expressing explicit social emotions shame and pride indicating actions and social approval.

reveal culture-specific societal expectations and attitudes (See Table 1) – paramount to building culturally competent AI models for diverse users (Talat et al., 2021; Atari et al., 2023).

For our study, we select two top movie industries, i.e., Hollywood and Bollywood¹. Hollywood primarily depicts social situations from the USA, an individualist society that values competency and autonomy (Triandis, 1989, 1988). Bollywood depicts India, a collectivist society where one's sense of self is interwoven with community beliefs. The cultural dichotomy between India and the USA (i.e., collectivism vs. individualism) thus presents a rich ground for understanding variations in their beliefs and values. Our approach blends psychology-informed language analysis with stateof-the-art Large Language Model (LLM) to delineate interpretable psychosocial constructs such as self-focus and morality in shame/pride-related expressions and extract implicit social expectations behind them.

¹https://en.wikipedia.org/wiki/Film_industry

This paper makes the following research contributions: (a) We develop a cross-cultural dataset of over 10k shame/pride-related dialogues with underlying social expectations², (b) We demonstrate cross-cultural variations in how and why shame and pride are expressed in movies, and (c) We illustrate that women are more subjected to social sanctions than men across cultures and for violating similar social expectations.

To the best of our knowledge, this is the first empirical study analyzing the psychosocial constructs underlying shame/pride-related expressions across cultures and the social expectations behind them.

2 Movies Subtitles Corpora

Movies provide culture-specific life-like depictions of social situations (Adkins and Castle, 2014; Kubrak, 2020). The natural conversation style between characters in movies can reveal the social power dynamics (e.g., *boss-employee*, *fatherdaughter*) and gender roles. Another potential alternative is social media posts however, they are (a) skewed to social situations specific to young demographic groups from Western countries, and (b) are second-hand reports that do not reveal fully the social dynamics of how shame/pride are expressed in natural conversations, for instance, between a boss and an employee.

We collected English subtitles for 5,435 Hollywood and Bollywood movies that were released post-1990 by auto-crawling websites that host or link movie subtitles (See Table 2 for data distribution). The subtitles are professionally done translations to preserve the emotions and intended message. Bollywood movie subtitles were collected from www.Bollynook.com and Hollywood movie subtitles were from the publicly available Kaggle movie subtitles dataset³. The year mapping was performed to ensure a similar period for collected movies. The year of release for movies was verified by either parsing subtitle file names having a release year or probing Wikipedia entries.

2.1 Extracting Shame and Pride related Expressions

The expressions of shame and pride could be explicit (See Table 1) or implicit (e.g. characters' lowered shoulders, avoiding eye contact, etc.). We

³https://www.kaggle.com/datasets/adiamaan/ movie-subtitle-dataset

	Hollywood	Bollywood
#Movies	2697	2738
#Tokens	20.78M	22.62M
#Shame	1221	5409
#Pride	2805	2999
#Control	4385	8303

Table 2: Data Distribution. #shame indicates the number of dialogues with the word "shame" or its derivative form (e.g., ashamed, shameless - See Table A1). Similarly, #pride indicates the number of dialogues with the word pride or its derivative form (e.g., proud). Control comprises dialogues without words *shame*, *pride*, or their derivatives.

extracted **explicit mentions of** *shame* and *pride* to learn about occurrences of shame and pride *as determined by the characters*. We adopted a keyword search-based approach (See Appendix A1) to identify dialogues along with the previous and the next two lines for situational context (See Table 1). For short dialogues such as monosyllabic responses in spoken conversations, we appended an extra previous and next line to context. One author manually checked the entire dataset of shame and pride-related dialogues to filter out dialogues with conventional phrases such as "*what a shame*", "*it's a shame*", "*proudly presents*".

Detecting implicit shame/pride-related expressions in textual discourse is a complex task. Computational systems for detecting social emotions such as shame and guilt underperform significantly compared to basic emotions such as joy due to internal self-evaluation associated with social emotions (Demszky et al., 2020; Resendiz and Klinger, 2023). We used GPT-4 language model (Achiam et al., 2023) to detect implicit expressions of shame in given movie dialogues. We recruited two human annotators to determine the agreement with GPT-4 generated labels (See Appendix A.2 for details). On a randomly sampled 100 situations each from H/Bollywood, the model labeled 20 samples to be expressing shame in Bollywood and 5 samples in Hollywood. However, the agreement between human annotators was low (4 out of 20 samples in Bollywood and 1 out of 5 samples in Hollywood where both annotators agreed with GPT-4). Human annotators across cultures tend to cross-label shame and guilt (Troiano et al., 2019) and followup discussions with annotators revealed similar tendencies. One such example from Hollywood is

²https://github.com/Khushangz/

Cross-Cultural-Social-Norms-Dataset/



Figure 1: An overview of our approach comprising two key steps (a) Vocabulary approach and (b) Prompting a pre-trained LLM.

provided below:

"about feeding the poor, I've never done any of that. God tells us to love everybody. I've hated people... my family, my family, "

Here, the speaker is probably expressing guilt, shame, or both. Given subjective beliefs and poor agreement with generated outputs, we adopted a high precision-low recall strategy and limited our further analysis to explicit mentions of shame and pride.

We created four sets of dialogues: (a) shamerelated dialogues in Bollywood, (b) shame-related dialogues in Hollywood, (c) pride-related dialogues in Bollywood and (d) pride-related dialogues in Hollywood. Cross-cultural differences also exist in speaking styles across cultures and we thus formed a control set of dialogues unrelated to *shame* and *pride* for both movie industries to remove the variations in language markers owing to culture-specific speaking styles (See Table 2 for dialogue distribution).

3 Approach

Fig. 1 illustrates our study design comprising two key approaches (a) using a psychosocial vocabulary approach to measure how expressions of shame and pride differ and (b) *prompting LLM* approach to extract reasons behind them and how they differ between India and the U.S.A.

3.1 Vocabulary Approach

Linguistic Inquiry of Word Count (LIWC) (Boyd et al., 2022) is a corpus analysis tool to identify psychological constructs such as "self-focus" and "morality", and therefore, is widely used for examining social behaviors such as self-regulation and conformity.

To understand cross-cultural linguistic variations in the manifestation of shame and pride, we computed the normalized distribution of psychosocial categories in LIWC from the dialogues and examined their correlation with shame and pride compared to the control set. The search keywords used for building social emotions corpus (See Table A1) were removed from the LIWC dictionary to prevent overestimation of shame- (e.g., negative emotion) and pride-related categories (e.g., achievement).

3.2 Prompting Approach

Identifying why shame/pride is expressed in discourse requires multicultural world knowledge. LLMs such as GPT-4 exhibit a superlative pragmatic understanding of the world around us and are increasingly used for extracting implicit meanings and beliefs (Pan et al., 2023; Törnberg, 2023). We used GPT-4 chat in a two-shot setting (See Tables A2 and A3 for prompts) to identify:

- who is <being shamed/feeling proud> in the given movie discourse, and what is their gender? and,
- What is the reason behind <the feeling of shame/pride>?

Since there are at least two characters in a discourse, the first question orients the LLM to focus on the *person experiencing the social sanction or approval* and then identify their gender. The output for the second question serves as the implicit *social expectation* that led to the expression of shame/pride in the culture. Asking for "reason" leading to the expression of social emotion encourages LLMs to retrieve expectations from the provided context, mitigating potential Anglocentric tendencies (Havaldar et al., 2023b).

Thematic Analysis of Reasons Behind Shame/Pride-related Expressions To capture overarching themes in social expectations that led to shame/pride-related expressions in Indian and American societies, we performed agglomerative clustering after embedding unique



Figure 2: Pearson *r* for LIWC categories significantly correlated (p < 0.05) with **shame** for Hollywood and Bollywood after Benjamini-Hochberg p-value correction (See Appendix for confidence intervals and p values). Note, 1^{st} person sing pronouns are strongly correlated with Hollywood-shame whereas the correlation with 2^{nd} person pronoun and social references are up to 3 times stronger in Bollywood compared to Hollywood. See Table A7 and A9 for the complete set of correlations.

shame and pride-related reasons using SBERT embeddings (Reimers and Gurevych, 2019). Unlike movie dialogues, reasons extracted from GPT-4 chat are short phrases (See Table 4) and are devoid of culture-specific language style markers (i.e., Indian English vs American English) thus, no control for culture-specific language is needed.

4 Results

4.1 How is shame/pride expressed across cultures?

Shame is associated with negative emotions, power, and morality in both movie industries (See Tables A7 and A9) however, significant cultural nuances exist in its manifestation (See Fig. 2). In Bollywood, shame-related expressions are otheroriented as indicated by 2nd person pronouns and social references. Female and sexual categories are correlated with shame exclusively in Bollywood potentially indicating the honor system in collectivist societies (Caffaro et al., 2014). Other psychosocial categories such as swearing and conflict with present focus reveal the role of shame in enforcing conformity. In Hollywood, shame expressions are self-focused with remorse (e.g., sadness, anxiety) and have past-focused language. Illness is uniquely correlated with shame in Hollywood indicating social sanctions around incapability.

A similar dichotomy is observed for pride (See



Figure 3: Pearson r for LIWC categories significantly correlated (p < 0.05) with **pride** for Hollywood and Bollywood after Benjamini-Hochberg p-value correction (See Appendix for confidence intervals and p values). Note the contrast, Achievement-related & Wecentered pride in Bollywood vs Social & Self-centered pride in Hollywood. See Table A8 and A10 for the complete set of correlations.

Fig. 3). In Bollywood, pride is *achievement/power* focused and "We"-centered. Pride is associated exclusively with men in Bollywood. Other psychosocial categories such as *moral* and *politics* are more strongly associated with pride. In Hollywood, pride is more self-centered and expressed for *family* more. Male references are more strongly associated with pride than females in Hollywood whereas the female category has an insignificant (p > 0.05) correlation with pride in Bollywood. Pride has a positive undertone in Hollywood whereas in Bollywood, we speculate that it relates to honor (e.g., *protecting family's pride, bringing pride to family*) and does not have a positive undertone.

4.2 How do *social expectations* behind shame/pride vary across cultures?

Cross-Cultural Shame/Pride Dataset For the Bollywood set, GPT-4 predicted reasons (also implicit social expectations) for 5321 (98.4%) shame-related dialogues out of 5409, and 2237 (74.6%) pride-related dialogues out of 2999. For the Hollywood set, GPT-4 chat predicted a reason for 1156 (94.6%) shame-related dialogues out of 1221 and 1731 (61.7%) pride-related dialogues out of 2805. Upon manual analysis, we found that pride is also used to express affection, specifically toward close family members such as children. As a result, a lower number of reasons is associated with pride compared to shame. GPT-4 chat predicted a total of **10,445 social expectations** (See Table 3 for distribution). Prompting "reasons" behind shame

	Bolly	wood	Holly	wood
	shame	pride	shame	pride
male	2690	1259	591	776
female	1215	326	246	236
Not clear	1416	652	319	719
total	5321	2237	1156	1731

Table 3: Reason and Gender distribution (with duplicates) for dialogues for which GPT-4 predicted *male* or *female*. The duplicate reasons are not removed as their frequency reflects their prevalence and is useful for estimating gender association.

and pride allowed us to capture high specificity in cultural norms (See Tables 4 for shame-related expectations and A6 for pride-related expectations).

4.2.1 Manual Evaluation

Two volunteers manually verified the predicted gender for "the person experiencing shame/pride" and the predicted "reason" for a randomly sampled set of 100 dialogues each from Hollywood and Bollywood. An Indian annotator aware of social roles and expectations in Indian society labeled the Bollywood set. Likewise, an American annotator labeled the Hollywood set.

For Bollywood, 8% of predicted gender and 11% of predicted reasons were incorrect where it was 5% and 2% respectively for Hollywood (See Table A5 for more details). There were 20 cases where gender (15) and/or reason (9) were ambiguous whereas, for Hollywood, there were 11 (gender=10, reason=1) such samples.

4.2.2 Thematic Analysis

Twenty-four clusters for shame-related reasons and fifteen for pride-related reasons were formed using agglomerative clustering (See Tables A13 and A14 for clustering parameters). The clusters were manually assigned a theme (as depicted on the Y-axis of Fig. 4 and 5) after analyzing the ten closest samples based on cosine distance from the centroid of the cluster (See Table A11 and A12 for examples in each cluster). We computed the relative association for each cluster with Bollywood and Hollywood using eq. 1 and performed the Barnard-Exact Test (Barnard, 1947) with the Yates Correction (Yates, 1934) to test if the possibility of observing norms related to pre-assigned themes is statistically different across movie industries.

eavesdropping on private conversation expressing love for a man Incestuous relationship giving birth to a girl child Hollywood not living up to expectations hiding/avoiding confrontation	Bollywood	
not living up to expectations	expressing love for a man Incestuous relationship	1
	Hollywood	

Table 4: A subset of reasons extracted from movie dialogues expressing shame. A total of 4604 unique reasons (Bollywood-3660, Hollywood-944) were extracted.

mistreatment of a woman

$$\vec{\Delta} = \forall_{t_i \in themes} \frac{\mathcal{D}_{bolly_{t_i}}}{\mathcal{D}_{bolly}} - \frac{\mathcal{D}_{holly_{t_i}}}{\mathcal{D}_{holly}} \qquad (1)$$

Here, $\mathcal{D}_{industry_{t_i}}$ represents dialogues to $industry \in \{holly, bolly\}$ and $t_i \in themes$ (as depicted on Y-axis in Fig 4 and 5).

Shame-related social norms Themes such as *lack of accountability* and *poverty* are more common in Hollywood whereas *inappropriate sexual behavior* and *gender roles* are more prevalent in Bollywood (See Fig. 4). Unsurprisingly, collectivist factors such as non-conformity in *gender* roles, disrespect, and deviation from *family norms* are strongly associated with shame in Bollywood whereas individualistic attributes such as *poverty*, causing *harm* and *incompetence* evoke shame in Hollywood.

Pride-related social norms *Duty, doing the "right" thing,* and, *self-identity* are associated with pride in Hollywood whereas *Ethnolinguistic identity,* and *son's achievements* are associated with pride in Bollywood (See Fig. 5).

4.2.3 How is shame/pride attributed across genders?

For the Bollywood set, GPT-4 predicted 1541 targets as female and 3949 as male. For the Hollywood set, GPT-4 predicted 482 targets as female and 1367 as male. Across all combinations (shame vs pride x Bollywood vs. Hollywood in Table 3), there are more male targets than females in line



Figure 4: Relative association (Δ) of Bollywood and Hollywood to themes obtained from agglomerative clustering performed on shame-related norms. * indicates significant difference i.e., p < 0.05. See Table A15 for statistics and p-value.

with the findings of Geena Davis Inclusion Quotient⁴.

We computed the gender-wise attribution to "shame" and "pride" in movie dialogues using eq. 2. A positive score indicates a higher association of gender groups with pride, whereas a negative score reflects a higher association with shame. A null score indicates no preference.

$$\vec{\Delta}_g = \forall_{g \in \{male, female\}} \frac{\mathcal{D}_{pride_g} - \mathcal{D}_{shame_g}}{\mathcal{D}_g} \quad (2)$$

Here, \mathcal{D}_{pride_g} represents movie dialogues having pride-related words where the target of pride is $g \in \{male, female\}, \mathcal{D}_{shame_g}$ represents movie dialogues having shame-related word where the target of shame is $g \in \{male, female\}$ and \mathcal{D}_g represents the number of movie dialogues spoken by g. As depicted in Fig. 6, Hollywood movies are prideoriented, whereas Bollywood movies are shameoriented. Females are attributed more shame, and the difference (male-female) in the expression of pride and shame is 0.16 for Hollywood and 0.21 for Bollywood.



Figure 5: Relative association (Δ) of Bollywood and Hollywood to themes obtained from agglomerative clustering performed on pride-related norms. * indicates significant difference i.e., p < 0.05. See Table A16 for statistics and p-value.



Figure 6: Relative association (Δ) of social emotions attributed to male and female. A higher positive score indicates a stronger association of gender with pride.

Social expectations evoking shame are similar across movie industries (See Fig. 7 and 8). Sexuality (e.g., *promiscuity, immodesty*) is the dominant theme for sanctioning women in both movie industries whereas males are shamed for *incompetency*. Women across movie industries express more pride in *family roles*. Men-pride in Bollywood is centered on *justice, winning* and *bravery* whereas it is *duty, self-identity* and *winning* in Hollywood (See Fig. A1 for gender differences in pride).

5 Discussion

We release a cross-cultural dataset of shame- and pride-related expressions with implicit reasons behind them. To the best of our knowledge, the only related corpus is the GoEmotions dataset (Demszky et al., 2020) comprising 817 samples for embarrassment and 452 samples for pride. Our dataset

⁴https://about.google/intl/ALL_us/main/ gender-equality-films/





Figure 7: Gender differences in shame-related themes in **Bollywood** movies. * indicates significant difference i.e., p < 0.05.

can help develop computational models for detecting shame/pride expressions and recognizing how appraisals of such emotions vary – enabling culturally cognisant human-computer conversations for diverse users (Kim et al., 2011) and cross-cultural intent translation⁵.

Shame is a highly undesirable emotion emphasizing incompetency and failures in the U.S. and used sparingly (Cohen, 2003; Boiger et al., 2013) whereas Eastern cultures use shame more frequently and it is known to have a desirable affect (Lim, 2016). Notably, we also observe that shame is 4.5 times more common in Bollywood compared to Hollywood. We also observe that shame is selffocused (reflecting internal shame) in Hollywood (See Table 2 and Fig. 2 for frequency distribution and psychosocial constructs). In contrast, shame is interdependent in collectivist communities (Wong and Tsai, 2007). The empirical analyses reveal other-focused (also, the public nature of shame) in Bollywood movies (See Fig. 3). Moreover, the contrasting tenses coupled with varying emotions, i.e., past-focus + sadness in Hollywood vs. present-focus + conflict in Bollywood, reflect their varying goals, i.e., remorse for past failures/losses

Figure 8: Gender differences in shame-related themes in **Hollywood** movies. * indicates significant difference i.e., p < 0.05.

vs enforcing conformity (Wong and Tsai, 2007). Pride-related discourse in Hollywood is duty and achievement-focused, in line with prior findings that the significance of "success" grows as a society becomes more individualistic (Cohen, 2003). In Bollywood, pride is collective and male-focused (*we, achievement, male-focused*) (Khadilkar et al., 2022). It is also interesting to note linguistic markers such as *determiner* (used with objects/nouns) in Bollywood indicate more materialistic pride, compared to personal pronouns and social references in Hollywood which reflect more personal pride.

Eliciting reasons leading to shame and pride expressions revealed social expectations across cultures. We observed high specificity in extracted reasons revealing cultural subtleties (e.g., desire for a son in Bollywood vs. returning calls after date night in Hollywood). To tease apart cultural differences, we first considered mapping social expectations/generated reasons to Schwartz's Theory of Values (Schwartz, 2012). However, social expectations were found to have contrasting values depending on the culture. Consider "refusing to marry", an instance of non-conformity in Indian society, whereas it is an instance of self-direction in a Western context. We thus performed hierarchical clustering and empirically picked the distance after manually analyzing the quality and granularity of clusters. The situations connected to shame and

⁵DARPA Computational Cultural Understanding: https://www.darpa.mil/program/ computational-cultural-understanding

pride in the U.S. society (i.e., *lacking accountability, poverty, harm*) vs Indian society (e.g., *inappropriate sexual behavior, gender roles, betrayal* - see Fig 4 and 5) align with known cultural tendencies (i.e., individualist vs collectivist) of both nations (Triandis, 1988).

The vision of safe and accountable AI is centered on LLMs' moral and value alignment. The dominant approach for norm discovery involves prompting LLMs, sometimes coupled with a verification step such as an entailment test or identifying underlying emotion (negative emotion \rightarrow norm violation) (Jiang et al., 2021; Fung et al., 2022; CH-Wang et al., 2023). However, a majority of social situations and the human annotators employed to label those situations reflect English beliefs and ethics. Our approach for extracting culture-specific social expectations and attitudes using social emotions overcomes this limitation. While the clustering was performed on the reasons extracted from movie conversations, the cluster themes are similar to patterns seen during LIWC analysis, validating our approach for overcoming Anglocentric bias in LLMs for norm discovery.

Lastly, we examined how social expectations associated with shame/pride are attributed to men and women across cultures influencing their social behaviors. For example, women are less assertive across cultures to avoid negative attribution (Amanatullah and Morris, 2010; Ferguson and Eyre, 2000) and ask for less during negotiation than men (Arnold and McAuliffe, 2021). We demonstrated that shame, a negative self-conscious emotion expressing devaluation, is targeted toward women more than men, and pride, a social emotion endorsing social value, is more used for men than women. The similarity in social expectations (e.g. regulating sexual behaviors of women vs shaming incompetency in men) across cultures is surprising. We thus feel that it is important to characterize social biases in the training data before their use for aligning LLMs.

6 Conclusion

We introduced a multi-cultural dataset of shame/pride-related expressions and the underlying social expectations. This study demonstrates (a) cross-cultural linguistic differences in shame and pride-related expression, offering insights into their functions across cultures, (b) cultural dichotomy in social expectations, and (c) more "social sanctions" and fewer "endorsements" to women in movies. Future work can utilize our dataset for culturally aligned LLMs and build social emotion perception and appraisal in human-computer interactions. Additionally, our analysis of shame/pride is the first of its kind; we hope future NLP researchers will build upon this work to investigate social expectations in LLMs from a multicultural, social emotion-based perspective.

Social Impact and Ethics Statement

Social norms discovery is a crucial component of social and behavioral change programs⁶ promoting equity, social justice, and well-being (Mauduy et al., 2022; Bonan et al., 2020). Further work explores style as a product of norm differences (Havaldar et al., 2023a). Social psychology investigates social norms (descriptive vs injunctive) to design experiments for understanding behaviors such as self-regulation, persuasion (Cialdini et al., 1990) and decision-making (Gavrilets, 2020; Bhanot, 2021) to promote collective-level change in societies.

Relatedly, Kimbrough and Vostroknutov (2023) showed people's tendency to choose self-serving social norms using a dictator-recipient setup, emphasizing the need for dedicated research efforts to understand morality and belief distortion in different contexts. The norms and cultural preferences learned from movies that often showcase stereotypical behaviors of society may induce pluralistic ignorance and, more importantly, lead to discrimination and biases in LLMs when used for training. We hope that this paper will encourage scrutiny of source corpora and derived norms before their use for fine-tuning LLMs.

Limitations

Social norms mutate as society evolves. We acknowledge that our dataset of movies (released post-1990) may reflect social norms that are less characteristic of contemporary society. Moreover, countries like India and America contain a mix of cultures. The captured norms may not reflect the cultural variations, for example, between regions (e.g., East Coast vs West Coast in the U.S.A or North vs South in India). Movies also exaggeratedly depict the world around us (e.g., weddings,

⁶ALIGN-https://www.alignplatform.org/ learning-collaborative

criminal activities, sexual abuse, etc.), and we caution against stereotyping cultures based on moviebased norms.

The dominant language in Bollywood movies is Hindi and our analysis is based on their English translations which may not always be accurate, especially when the discourse is about concepts native to a culture. LIWC dictionary may also lack complete coverage for such concepts. We did not compare the movie genre and acknowledge that situational/unrealistic norms (e.g., science fiction, comedy, etc.) could exist. Regardless, social norms associated with shame and pride are still relatable and reflect the target audience's beliefs. This study is conducted over a thirty-year long period and the aggregated norms may not truly reflect the current trends.

We acknowledge that the excerpts expressing shame and pride from movie subtitles may have led to the over-representation of certain social situations (e.g., son's achievement and daughter's wedding in India vs duty and competence in America). The prompts used to elicit norms may have induced unwanted bias (Cheng et al., 2023; Lucy and Bamman, 2021) and it is worth investigating the variations if any, in extracted norms due to different prompt designs.

Data use and availability

Bollywood subtitles were scraped from a website called www.bollynook.com and Hollywood subtitles are taken from publicly available Kaggle movie subtitles datasets. We will only release dialogue excerpts related to shame and pride. We have around 7.5k such instances in Bollywood and almost 2.8k in Hollywood. Under the interpretation of fair use in research, this makes up a very small portion of dialogues taken from Bollywood (i.e. almost 3 samples (5 lines long) per movie on average) and Hollywood (about 1 sample (5 lines long) per movie on average).

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References

- Josh Achiam, Steven Adler, Sandhini Agarwal, Lama Ahmad, Ilge Akkaya, Florencia Leoni Aleman, Diogo Almeida, Janko Altenschmidt, Sam Altman, Shyamal Anadkat, et al. 2023. Gpt-4 technical report. *arXiv preprint arXiv:2303.08774*.
- Todd Adkins and Jeremiah J Castle. 2014. Moving pictures? experimental evidence of cinematic influence on political attitudes. *Social Science Quarterly*, 95(5):1230–1244.
- Emily T Amanatullah and Michael W Morris. 2010. Negotiating gender roles: Gender differences in assertive negotiating are mediated by women's fear of backlash and attenuated when negotiating on behalf of others. *Journal of personality and social psychology*, 98(2):256.
- Sophie H Arnold and Katherine McAuliffe. 2021. Children show a gender gap in negotiation. *Psychological Science*, 32(2):153–158.
- Mohammad Atari, Mona J Xue, Peter S Park, Damián Blasi, and Joseph Henrich. 2023. Which humans? *Working paper*.
- GA Barnard. 1947. Significance tests for 2×2 tables. *Biometrika*, 34(1/2):123–138.
- Syon P Bhanot. 2021. Isolating the effect of injunctive norms on conservation behavior: New evidence from a field experiment in california. *Organizational Behavior and Human Decision Processes*, 163:30–42.
- Michael Boiger, Simon De Deyne, and Batja Mesquita. 2013. Emotions in "the world": cultural practices, products, and meanings of anger and shame in two individualist cultures. *Frontiers in psychology*, 4:867.
- Jacopo Bonan, Cristina Cattaneo, Giovanna d'Adda, and Massimo Tavoni. 2020. The interaction of descriptive and injunctive social norms in promoting energy conservation. *Nature Energy*, 5(11):900–909.
- Ryan L Boyd, Ashwini Ashokkumar, Sarah Seraj, and James W Pennebaker. 2022. The development and psychometric properties of liwc-22. *Austin, TX: University of Texas at Austin*, pages 1–47.
- Federica Caffaro, Federico Ferraris, and Susanna Schmidt. 2014. Gender differences in the perception of honour killing in individualist versus collectivistic cultures: Comparison between italy and turkey. *Sex roles*, 71(9):296–318.
- Sky CH-Wang, Arkadiy Saakyan, Oliver Li, Zhou Yu, and Smaranda Muresan. 2023. Sociocultural norm similarities and differences via situational alignment and explainable textual entailment. *arXiv preprint arXiv:2305.14492*.
- Myra Cheng, Tiziano Piccardi, and Diyi Yang. 2023. Compost: Characterizing and evaluating caricature in llm simulations. *arXiv preprint arXiv:2310.11501*.

- Robert B Cialdini, Raymond R Reno, and Carl A Kallgren. 1990. A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of personality and social psychology*, 58(6):1015.
- Dov Cohen. 2003. The american national conversation about (everything but) shame. *Social Research: An International Quarterly*, 70(4):1075–1108.
- Taya R Cohen, Scott T Wolf, Abigail T Panter, and Chester A Insko. 2011. Introducing the gasp scale: a new measure of guilt and shame proneness. *Journal of personality and social psychology*, 100(5):947.
- Dorottya Demszky, Dana Movshovitz-Attias, Jeongwoo Ko, Alan Cowen, Gaurav Nemade, and Sujith Ravi. 2020. Goemotions: A dataset of fine-grained emotions. arXiv preprint arXiv:2005.00547.
- Tamara J Ferguson and Heidi L Eyre. 2000. Engendering gender differences in shame and guilt: Stereotypes, socialization, and situational pressures. *Gender and emotion*, page 254.
- D Fessler. 2007. From appeasement to conformity. Selfconscious emotions: Theory and research, pages 174– 193.
- Kurt W Fischer and June Price Tangney. 1995. Selfconscious emotions and the affect revolution: Framework and overview. *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, pages 3–22.
- Yi R Fung, Tuhin Chakraborty, Hao Guo, Owen Rambow, Smaranda Muresan, and Heng Ji. 2022. Normsage: Multi-lingual multi-cultural norm discovery from conversations on-the-fly. *arXiv preprint arXiv:2210.08604*.
- Sergey Gavrilets. 2020. The dynamics of injunctive social norms. *Evolutionary Human Sciences*, 2:e60.
- Jennifer L Goetz and Dacher Keltner. 2007. Shifting meanings of self-conscious emotions across cultures. *The self-conscious emotions: Theory and research*, pages 153–173.
- Shreya Havaldar, Matthew Pressimone, Eric Wong, and Lyle Ungar. 2023a. Comparing styles across languages. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing*, pages 6775–6791, Singapore. Association for Computational Linguistics.
- Shreya Havaldar, Sunny Rai, Bhumika Singhal, Langchen Liu, Sharath Chandra Guntuku, and Lyle Ungar. 2023b. Multilingual language models are not multicultural: A case study in emotion. In WASSA'2023, ACL.
- Liwei Jiang, Jena D Hwang, Chandra Bhagavatula, Ronan Le Bras, Maxwell Forbes, Jon Borchardt, Jenny Liang, Oren Etzioni, Maarten Sap, and Yejin Choi. 2021. Delphi: Towards machine ethics and norms. *arXiv preprint arXiv:2110.07574*.

- Kunal Khadilkar, Ashiqur R KhudaBukhsh, and Tom M Mitchell. 2022. Gender bias, social bias, and representation in bollywood and hollywood. *Patterns*, 3(2).
- Sangmoon Kim, Ryan Thibodeau, and Randall S Jorgensen. 2011. Shame, guilt, and depressive symptoms: a meta-analytic review. *Psychological bulletin*, 137(1):68.
- Erik O Kimbrough and Alexander Vostroknutov. 2023. A theory of injunctive norms. *Available at SSRN* 3566589.
- Tina Kubrak. 2020. Impact of films: Changes in young people's attitudes after watching a movie. *Behavioral sciences*, 10(5):86.
- Michael Lewis, Kiyoko Takai-Kawakami, Kiyobumi Kawakami, and Margaret Wolan Sullivan. 2010. Cultural differences in emotional responses to success and failure. *International journal of behavioral development*, 34(1):53–61.
- Nangyeon Lim. 2016. Cultural differences in emotion: differences in emotional arousal level between the east and the west. *Integrative medicine research*, 5(2):105–109.
- Li Lucy and David Bamman. 2021. Gender and representation bias in gpt-3 generated stories. In *Proceedings of the Third Workshop on Narrative Understanding*, pages 48–55.
- Maxime Mauduy, Daniel Priolo, Nicolas Margas, and Cécile Sénémeaud. 2022. When combining injunctive and descriptive norms strengthens the hypocrisy effect: A test in the field of discrimination. *Frontiers in Psychology*, 13:989599.
- Alexander Pan, Jun Shern Chan, Andy Zou, Nathaniel Li, Steven Basart, Thomas Woodside, Hanlin Zhang, Scott Emmons, and Dan Hendrycks. 2023. Do the rewards justify the means? measuring trade-offs between rewards and ethical behavior in the machiavelli benchmark. In *International Conference on Machine Learning*, pages 26837–26867. PMLR.
- Tom Pyszczynski, Jeff Greenberg, Sheldon Solomon, Jamie Arndt, and Jeff Schimel. 2004. Why do people need self-esteem? a theoretical and empirical review. *Psychological bulletin*, 130(3):435.
- Nils Reimers and Iryna Gurevych. 2019. Sentence-bert: Sentence embeddings using siamese bert-networks. In Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP), pages 3982–3992.
- Yarik Menchaca Resendiz and Roman Klinger. 2023. Affective natural language generation of event descriptions through fine-grained appraisal conditions. *INLG 2023*, page 375.

- Rebecca L Schaumberg and Samuel E Skowronek. 2022. Shame broadcasts social norms: The positive social effects of shame on norm acquisition and normative behavior. *Psychological Science*, 33(8):1257–1277.
- Shalom H Schwartz. 2012. An overview of the schwartz theory of basic values. *Online readings in Psychology and Culture*, 2(1):11.
- Zeerak Talat, Hagen Blix, Josef Valvoda, Maya Indira Ganesh, Ryan Cotterell, and Adina Williams. 2021. A word on machine ethics: A response to jiang et al.(2021). *arXiv preprint arXiv:2111.04158*.
- June P Tangney, Patricia Wagner, and Richard Gramzow. 1992. Proneness to shame, proneness to guilt, and psychopathology. *Journal of abnormal psychology*, 101(3):469.
- Petter Törnberg. 2023. Chatgpt-4 outperforms experts and crowd workers in annotating political twitter messages with zero-shot learning. *arXiv preprint arXiv:2304.06588*.
- Harry Triandis. 1988. Collectivism v. individualism: A reconceptualisation of a basic concept in crosscultural social psychology. In *Cross-cultural studies of personality, attitudes and cognition*, pages 60–95. Springer.
- Harry C Triandis. 1989. The self and social behavior in differing cultural contexts. *Psychological review*, 96(3):506.
- Enrica Troiano, Sebastian Padó, and Roman Klinger. 2019. Crowdsourcing and validating event-focused emotion corpora for german and english. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, pages 4005–4011.
- Maximilian Wegge, Enrica Troiano, Laura Ana Maria Oberlaender, and Roman Klinger. 2022. Experiencerspecific emotion and appraisal prediction. In *Proceedings of the Fifth Workshop on Natural Language Processing and Computational Social Science (NLP+ CSS)*, pages 25–32.
- Ying Wong and Jeanne Tsai. 2007. Cultural models of shame and guilt. *The self-conscious emotions: Theory and research*, 209:223.
- Frank Yates. 1934. Contingency tables involving small numbers and the χ 2 test. *Supplement to the Journal of the Royal Statistical Society*, 1(2):217–235.

A Appendix

A.1 Search Keywords

Search keywords defined in Table A1 were used to extract shame- and pride-related dialogues from Bollywood and Hollywood movie subtitles.

Lemma	Word forms
shame	shame, shamed, shameful, ashamed
pride	proud, prouder, proudly, pride

Table A1: List of search keywords for extracting dialogues.

A.2 Examining Implicit shame

We prompted GPT-4 chat to identify (a) if a given discourse expresses shame, and (b) identify the behavior or action behind shame, for a randomly sampled set of 100 samples without explicit mentions of shame/pride each from Hollywood and Bollywood. We asked two human annotators to evaluate the correctness of GPT-4 chat-generated outputs. See Table A4 for annotation guidelines.

A.3 Prompts

The prompts designed to extract the subject experiencing shame and pride, their gender, and the reason behind the emotions are provided in Tables A2 and A3.

Prompts for norm discovery in Bollywood movie dialogues

"You are an experienced social scientist and you study Indian society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is feeling proud? Provide the gender. If agent or gender is not explicit, use the pronouns, name, and salutations to guess agent and gender. 2. Identify the reason behind feeling proud. If not explicit, return NA. The answer should be short and in below CSV format. <who_proud, gender, reason> Input: Your mother had already given up on me because I was useless hopeless But you were the apple of her eye My child will make me proud look after me He'll support in my old-age But this kid left her all alone. Output: mother, male, provide care for old parents Input: I've heard there's a promising young student in your school What's his name? He's made us proud in long jump, we are here to felicitate him Call him Show yourself, Raju Tempre Output: authority, NA, Sports achievement" "You are an experienced social scientist and you study Indian society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is **being shamed**? Predict the gender. If gender is not explicit, use the pronouns, name, and salutations to guess gender. 2. Identify the primary reason for shaming. If not explicit, return NA. The answer should be short and in CSV format. < who_shame, gender, reason> Input: And should we bow before others begging them to marry our daughters? This shall not happen. Neither will the girls be alive here nor shall....we be ashamed of ourselves. You cannot kill the life which God has given.

- I won't let you commit the sin.
- Output: girl's parent, NA, not able to marry off their daughters

Input: Black marketers are now in the open. And the thieves too Politics is in a great mess Shame on this system. There's no democracy Get rid of these politicians The gong has struck.."Our hearts are swaying to it's beats" Output: System, NA, poor law and regulations"

Table A2: Bollywood: Prompts for norm discovery using GPT-4 Chat. The temperature was set to 0 to minimize randomness.

A.3.1 Annotation

The annotation guidelines to verify the gender predicted by GPT-4 and the correctness of the reason are provided in Table A4. The annotators for Bollywood set and Hollywood set were Indian and American respectively. Both annotators were female, proficient in English language, and well-versed with social norms. During annotation, if the gender or the reason is unclear, the annotators were asked to label "not

Prompts for norm discovery in Hollywood movie dialogues

"You are an experienced social scientist and you study American society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is feeling proud? Provide the gender. If agent or gender is not explicit, use the pronouns, name, and salutations to guess agent and gender. 2. Identify the reason behind feeling proud? If not explicit, return NA. The answer should be short and in below CSV format. <who_proud, gender, reason> Input: I want to go to Worlds and win gold. I want to go to the 88 Olympics in Seoul and win gold. Good! I'm proud of you. Are you getting the support that you need? What do you mean sir? Output: Sir, male, winning olympic gold Input: Yes. Yes, I did. I promise, this time I really got the promotion. - I'm proud of you, son. - Thank you, sir. Excuse me. Hi, sweetheart. Output: father, male, for getting the promotion" "You are an experienced social scientist and you study American society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is being shamed? Predict the gender. If gender is not explicit, use the pronouns, name, and salutations to guess gender. 2. Identify the primary reason for shaming. If not explicit, return NA. The answer should be short and in CSV format. < who_shame, gender, reason> Input: You still owe me 100. Remember? You stiffed Donny for 100 bucks? Cheapskate. Shame on you. Pay this man his C-note. Now I know why they call you the Snake. Output: NA, male, not returning borrowed money Input: You prey on your own people. You steal from your own people. Have you no shame !? - Huh? - Well, we're still here. Man: Mr. Markopolos, it's all yours. Output: Snake, male, stealing and preying on people"

Table A3: Hollywood: Prompts for norm discovery using GPT-4 Chat. The temperature was set to 0 to minimize randomness.

Guidelines for Manual Evaluation

Step-1. Read the conversation and identify the person feeling ashamed (or being shamed) or proud.

Step-2. Identify the gender. Check gender markers such as Mr/Mrs., s/he, him/her, etc. If the name is provided in the conversation, check if the name is likely to be a male name or female. If not clear, mark "not explicit".

Step-3. Read the reason behind shame/pride. Compare with conversation and determine if the provided reason is the cause for shame/pride.

Table A4: Guidelines for Annotation

explicit". We only considered the cases where the gender was predicted to be either male or female. The task is objective and inter-annotator agreement was not computed. The annotators volunteered for the task and were not provided monetary compensation.

A.4 LIWC Correlation Results

Tables A7, A8, A9 and A10 contain positively correlated (p < 0.05) LIWC categories, the most frequent five words for each category, Pearson r and confidence interval.

A.5 Clustering Results

Tables A13 and A14 contain the manually annotated *Cluster Themes*, the total number of samples in each cluster, and Bollywood vs Hollywood distribution. The distance was set to 5 and the duplicates were removed. The theme and top three examples demonstrating its meaning are provided in Tables A11 and A12.

Gender Evaluation			
	Incorrect Ambiguous		
Bollywood	8	15 (3 Female)	
Hollywood	5	10 (3 Female)	
Social Norms/Reason Evaluation			
	Incorrect	Ambiguous	
Bollywood	11	9	
Hollywood	2	1	

Table A5: Manual Evaluation of predicted gender and reasons for randomly sampled 100 samples each from Bollywood and Hollywood.

Bollywood
mastering a trick
fulfilling father's dreams
provide care for old parents
fiancee's physical appearance
his wealth
Hollywood
for being a hard worker regardless of the task
being a brilliant student
winning Olympic gold
achievements and growth
coming out as queer

Table A6: A subset of reasons extracted from movie dialogues expressing pride. A total of 3163 unique reasons (Bollywood-1589, Hollywood-1574) were extracted.

LIWC Categories	Top-5 words	r	p-value	95% CI
Negative emotions (EMO_NEG)	(bad, mad, scared, worry, fear)	0.330	0.000	[0.315, 0.344]
Negative tone (TONE_NEG)	(lost, kill, wrong, bad, hit)	0.249	0.000	[0.233, 0.265]
POWER	(sir, respect, own, kill, poor)	0.198	0.000	[0.182, 0.214]
EMOTION	(love, good, bad, happy, crazy)	0.168	0.000	[0.152, 0.185]
2^{nd} person pronouns (YOU)	(you, your, you're, yourself, you've)	0.161	0.000	[0.145, 0.178]
Social references (SOCREFS)	(you, your, he, her, him)	0.148	0.000	[0.132, 0.165]
FEELING	(feel, touch, feeling, felt, hard)	0.133	0.000	[0.117, 0.150]
DRIVES	(we, our, us, sir, married)	0.115	0.000	[0.098, 0.132]
SOCIAL	(you, your, he, her, him)	0.110	0.000	[0.094, 0.127]
MORAL	(wrong, innocent, duty, decent, excuse)	0.102	0.000	[0.085, 0.118]
AFFECT	(love, good, keep, respect, well)	0.078	0.000	[0.062, 0.095]
NEGATE	(not, don't, no, aren't, won't)	0.065	0.000	[0.049, 0.082]
FEMALE	(her, she, girl, she's, mom)	0.060	0.000	[0.043, 0.077]
Personal Pronouns (PPRON)	(you, i, me, your, my)	0.058	0.000	[0.041, 0.075]
FAMILY	(son, married, uncle, dad, mom)	0.055	0.000	[0.039, 0.072]
Preposition (PREP)	(to, of, in, for, on)	0.053	0.000	[0.037, 0.070]
SEXUAL	(chaste, lust, sex, sexy, pimp)	0.051	0.000	[0.034, 0.067]
PRONOUN	(you, i, me, your, my)	0.040	0.000	[0.023, 0.057]
Auxiliary verbs (AUXVERB)	(is, are, have, be, don't)	0.029	0.001	[0.013, 0.046]
CONFLICT	(kill, killed, accusing, killing, cruel)	0.024	0.007	[0.007, 0.041]
SWEAR	(hell, bloody, idiot, damn, ass)	0.024	0.007	[0.007, 0.041]
Anger (EMO_ANGER)	(mad, angry, hate, cruel, argue)	0.022	0.015	[0.005, 0.039]
FOCUSPRESENT	(is, are, don't, i'm, aren't)	0.021	0.018	[0.005, 0.038]

Table A7: Psychosocial categories positively correlated (p < 0.05) with *shame* in **Bollywood**. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

LIWC Categories	Top-5 words	r	p-value	95% CI
DRIVES	(we, our, us, sir, work)	0.122	0.000	[0.104,0.140]
Determiner (DET)	(the, a, my, your, that)	0.101	0.000	[0.082,0.119]
ACHIEVE	(work, better, win, best, try)	0.098	0.000	[0.080,0.116]
POWER	(sir, own, respect, kill, power)	0.091	0.000	[0.072,0.109]
Social References (SOCREFS)	(you, your, he, we, our)	0.085	0.000	[0.067,0.103]
Preposition (PREP)	(of, to, in, for, with)	0.084	0.000	[0.066,0.103]
MORAL	(wrong, duty, brave, arrogant, useless)	0.075	0.000	[0.057,0.093]
Conjunction (CONJ)	(and, but, so, if, as)	0.075	0.000	[0.056,0.093]
REWARD	(win, won, glory, success, successful)	0.071	0.000	[0.052,0.089]
Positive tone (TONE_POS)	(love, good, thank, well, great)	0.064	0.000	[0.046,0.082]
POLITIC	(nation, army, sultan, president, dynasty)	0.064	0.000	[0.045,0.082]
WE	(we, our, us, we'll, let's)	0.060	0.000	[0.042,0.079]
SOCIAL	(you, your, he, we, our)	0.060	0.000	[0.041,0.078]
FAMILY	(son, papa, married, dad, uncle)	0.059	0.000	[0.041,0.078]
AFFILIATION	(we, our, us, dear, we'll)	0.059	0.000	[0.041,0.077]
FEELING	(feel, feeling, hard, felt, sense)	0.055	0.000	[0.036,0.073]
ETHNICITY	(indian, indians, british, hindi, caste)	0.054	0.000	[0.036,0.072]
MALE	(he, his, him, son, sir)	0.054	0.000	[0.036,0.072]
CULTURE	(indian, nation, army, car, indians)	0.044	0.000	[0.026,0.062]
AFFECT	(love, good, thank, well, great)	0.040	0.000	[0.021,0.058]
ARTICLE	(the, a, an, that)	0.039	0.000	[0.021,0.058]
Personal Pronouns (PPRON)	(you, i, my, your, me)	0.036	0.000	[0.017,0.054]
PROSOCIAL	(thank, please, sorry, respect, gift)	0.032	0.001	[0.014,0.051]
FUNCTION	(you, the, i, of, to)	0.032	0.001	[0.013,0.050]
2^{nd} person pronouns (YOU)	(you, your, you're, you've, you'll)	0.030	0.003	[0.011,0.048]
THEY	(they, their, them, they're, they'll)	0.029	0.003	[0.011,0.048]
CERTITUDE	(really, real, surely, proved, actually)	0.021	0.041	[0.002,0.039]
Positive Emotion (EMO_POS)	(love, good, happy, happiness, smile)	0.020	0.049	[0.001,0.038]

Table A8: Psychosocial categories positively correlated (p < 0.05) with *pride* in **Bollywood**. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

LIWC Categories	Top-5 words	r	p	95% CI
Negative emotions (EMO_NEG)	(sick, pain, fear, bad, afraid)	0.425	0.000	[0.403, 0.446]
Negative tone (TONE_NEG)	(lost, wrong, sick, pain, poor)	0.355	0.000	[0.331, 0.377]
EMOTION	(good, love, sick, pain, bad)	0.290	0.000	[0.266, 0.314]
POWER	(own, sir, poor, killed, war)	0.263	0.000	[0.238, 0.287]
AFFECT	(well, good, love, help, damn)	0.168	0.000	[0.142, 0.193]
DRIVES	(we, us, our, work, we're)	0.152	0.000	[0.127, 0.178]
FUNCTION	(you, i, the, to, of)	0.131	0.000	[0.105, 0.157]
Personal Pronouns (PPRON)	(you, i, me, i'm, my)	0.111	0.000	[0.085, 0.137]
MORAL	(wrong, excuse, decent, honest, duty)	0.110	0.000	[0.084, 0.136]
1^{st} person sing. pronouns (I)	(i, me, i'm, my, i'll)	0.102	0.000	[0.076, 0.128]
Sadness (EMO_SAD)	(crying, cry, sob, lonely, sad)	0.096	0.000	[0.070, 0.122]
NEGATE	(no, not, don't, nothing, never)	0.090	0.000	[0.063, 0.116]
Preposition (PREP)	(to, of, in, for, on)	0.089	0.000	[0.062, 0.115]
PRONOUN	(you, i, that, it, me)	0.088	0.000	[0.062, 0.114]
YOU	(you, your, you're, yourself, you've)	0.080	0.000	[0.054, 0.106]
Auxiliary verb (AUXVERB)	(be, i'm, is, was, have)	0.077	0.000	[0.051, 0.103]
FOCUSPAST	(was, did, were, been, didn't)	0.069	0.000	[0.043, 0.096]
SOCIAL	(you, your, we, he, you're)	0.060	0.000	[0.033, 0.086]
Conjunction (CONJ)	(and, so, but, if, when)	0.056	0.000	[0.030, 0.082]
LINGUISTIC	(you, i, the, to, of)	0.056	0.000	[0.030, 0.082]
ALLNONE	(no, all, nothing, never, yes)	0.055	0.000	[0.029, 0.081]
FAMILY	(son, dad, baby, mom, mama)	0.054	0.000	[0.028, 0.081]
Social references (SOCREFS)	(you, your, we, he, you're)	0.050	0.000	[0.024, 0.077]
Anxiety (EMO_ANX)	(fear, afraid, worry, terrified, scared)	0.042	0.004	[0.015, 0.068]
ILLNESS	(sick, pain, pains, flu, sickly)	0.038	0.010	[0.012, 0.064]
FEELING	(feel, felt, pain, feeling, hard)	0.035	0.020	[0.008, 0.061]
Anger (EMO_ANGER)	(hate, hated, mad, angry, hates)	0.033	0.026	[0.007, 0.059]
DIFFER	(not, but, if, didn't, or)	0.033	0.027	[0.007, 0.059]
Discrepancy (DISCREP)	(should, can, would, can't, want)	0.032	0.029	[0.006, 0.059]
COGNITION	(no, not, all, know, but)	0.032	0.033	[0.005, 0.058]

Table A9: Psychosocial categories positively correlated (p<0.05) with *shame* in **Hollywood**. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

LIWC Categories	Top-5 words	r	p-value	95% CI
Personal Pronouns (PPRON)	(you, i, i'm, me, my)	0.135	0.000	[0.113,0.158]
Social References (SOCREFS)	(you, your, we, he, you're)	0.131	0.000	[0.108,0.154]
FAMILY	(son, dad, baby, mom, mama)	0.121	0.000	[0.099,0.144]
Conjunction (CONJ)	(and, so, but, as, if)	0.114	0.000	[0.091,0.137]
SOCIAL	(you, your, we, he, you're)	0.102	0.000	[0.079,0.125]
FUNCTION	(you, i, the, of, to)	0.100	0.000	[0.077,0.123]
1^{st} person sing. pronouns (I)	(i, i'm, me, my, i'll)	0.095	0.000	[0.072,0.118]
YOU	(you, your, you're, you've, yourself)	0.091	0.000	[0.068,0.114]
MALE	(he, his, him, man, son)	0.084	0.000	[0.061,0.107]
DRIVES	(we, our, us, we're, dad)	0.076	0.000	[0.053,0.099]
Positive tone (TONE_POS)	(good, well, thank, great, love)	0.072	0.000	[0.049,0.095]
PRONOUN	(you, i, i'm, that, it)	0.072	0.000	[0.048,0.095]
Auxiliary Verb (AUXVERB)	(i'm, be, is, was, have)	0.071	0.000	[0.048,0.094]
Positive Emotion (EMO_POS)	(good, love, happy, hope, wonderful)	0.070	0.000	[0.047,0.093]
Preposition (PREP)	(of, to, in, for, on)	0.070	0.000	[0.047,0.093]
AFFILIATION	(we, our, us, we're, dad)	0.054	0.000	[0.031,0.078]
EMOTION	(good, love, happy, hope, bad)	0.052	0.000	[0.029,0.075]
ETHNICITY	(american, irish, chinese, german, christian)	0.052	0.000	[0.029,0.075]
REWARD	(win, won, winner, successful, earned)	0.048	0.000	[0.025,0.071]
ACHIEVE	(work, better, best, trying, try)	0.045	0.000	[0.022,0.068]
POWER	(sir, own, war, strong, mighty)	0.044	0.001	[0.021,0.067]
AFFECT	(good, well, thank, great, love)	0.041	0.001	[0.018,0.064]
MORAL	(wrong, excuse, hero, brave, dignity)	0.040	0.002	[0.017,0.064]
FEMALE	(her, she, she's, girl, ladies)	0.034	0.009	[0.011,0.057]
CULTURE	(american, car, president, nation, mayor)	0.033	0.012	[0.009,0.056]
FOCUSPAST	(was, did, been, were, had)	0.032	0.013	[0.009,0.055]
SHEHE	(he, his, him, her, she)	0.031	0.016	[0.008,0.054]
WORK	(work, job, school, deal, company)	0.028	0.033	[0.005,0.051]

Table A10: Psychosocial categories positively correlated (p<0.05) with *pride* in **Hollywood**. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.



(a) Pride-related norms in Bollywood

(b) Pride-related norms in Hollywood

Figure A1: Gender-wise differences in themes associated with normative expectations from pride-related discourse in Bollywood and Hollywood. $\Delta(Female - Male)$ is the difference between normalized dialogues attributed to females under a theme and to males under the same theme (as in eq. 1 but for dimension gender). * indicates significant difference i.e., p < 0.05

Theme	Examples from cluster
Stealing	shamelessness and taking money, lying and misusing money, Stealing and bribery
Poverty	not having money, being poor, living in poor conditions
Incompetence	not fulfilling responsibilities, not meeting expectations or making a mistake, Failure or perceived incompetence
Promiscuity	being promiscuous, Having a love affair, shameless behavior and expressing love
Inappropriate social behavior Disobedience	not living up to someone's expectations, being disloyal, Being rude and ungrateful not upholding cultural values, disobedience or lack of respect, being disloyal
Parent-related	not standing up for his mother, not taking care of his father, not taking responsibility for his son
Marriage-related	refusing to marry, being forced into marriage, not accepting the proposed marriage
Immodesty	Wearing inappropriate clothes, inappropriate behavior nudity in public, behaving indecently in public
Gender Roles	not behaving as per her husband's expectations, behaving inappropriately in front of her daughter, going against her husband
Sexual Harassment	assaulting a girl, physical assault on women, sexual assault
Cowardice	lack of courage, cowardice and inability to stand up for oneself, lack of pride and integrity
Alcoholism	excessive drinking, inappropriate behavior due to alcohol, drinking and irresponsible behavior
Non-conformity	not conforming to gender norms, breaking gender norms, behaving inappropriately according to societal norms
Illegal activities	engaging in criminal activities, Being a criminal, committing illegal acts
Betrayal	Betrayal or dishonesty, betrayal and infidelity, Deception/Betrayal
Lack of accountability	not taking responsibility and blaming others, wrongdoing without remorse, not acknowledging wrongdoing
Disrespect	disrespecting others, disrespecting an authority figure, Disrespectful and inappropri- ate behavior
Harm	causing harm to others, committing harmful deeds, causing trouble and endangering others
Lying/Deception	lying and hiding information, Lying or deceit, Deception/Not being truthful
Inappropriate sexual behavior	inappropriate advances and comments, inappropriate behavior towards a young girl, inappropriate language and behavior
Social Etiquette	Being humiliated in public, being disrespected and belittled, being mocked and treated shamefully
Privacy-related	invading personal space, invading someone's privacy, intrusion of personal space, trespassing/invading personal space
Accusation	accused of wrongdoing, being accused of something, being accused of infidelity
Family norms	Disrespecting family, causing harm and shame to family, causing difficulty and shame to family
Lack of shame	perceived shamelessness, being perceived as shameless, feeling embarrassed and ashamed

Table A11: Themes (n = 26) and top-3 examples for clusters obtained after agglomerative clustering of shamerelated dialogues from Bollywood and Hollywood. The cluster *Lack of shame* was removed since the reason behind shame was not evident. Clusters *Lack of accountability* and *Inappropriate social behavior* were merged together (and named "Lack of accountability") due to overlapping normative expectations.

Theme	Examples from cluster
Achievement	being a brilliant student, working hard and achieving a spectacular result, professional achievement
Family Roles	raising their child, having an unselfish mother, having a simple and good daughter
Self-identity	being a man, being a woman, being gay
Duty	fulfilling duty, Accomplishing something great, saving the world
Bravery	bravery and sacrifice, bravery and service to nation, bravery and selflessness
Nation	saving the country's pride, making country proud, Making country proud
Doing the "right" thing	for doing the right thing, for being heroes, for having courage
Son's achievements	son's success and progress, son's hard work and achievement, son's determination
Family Honor	maintaining dignity and pride, taking care of family pride, saving family's pride
Justice	standing up for justice, fighting for justice, bringing justice
Wedding	marrying with pride and respect, sister's marriage, daughter's marriage into a reputed family
Physical Appearance & Assets	his manhood, his wealth and beautiful wife, his knowledge and power
Resilience	resilience and determination, overcoming struggles, enduring hardships without complaint
Winning	Sports achievement, working hard and achieving a spectacular result, winning some-
Ethnolinguistic Identity	thing being Indian defending the pride of Deinute being a Maharashtrian
Ethnolinguistic Identity	being Indian, defending the pride of Rajputs, being a Maharashtrian

Table A12: Themes (n = 15) and top-3 examples for clusters obtained after agglomerative clustering of pride-related dialogues from Bollywood and Hollywood.

Theme (Shame-related norms)	Total Samples	Hollywood	Bollywood
Lack of Accountability	802	185	617
Accusation	70	0	70
Alcoholism	98	18	80
Betrayal	262	26	236
Cowardice	209	51	158
Disobedience	216	49	167
Disrespect	246	26	220
Family norms	203	24	179
Gender roles	221	17	204
Harm	225	64	161
Illegal activities	253	27	226
Immodesty	311	58	253
Incompetence	342	83	259
Lying/Deception	222	53	169
Marriage-related	179	25	154
Non-conformity	208	28	180
Parent-related	263	34	229
Poverty	414	108	306
Privacy-related	102	14	88
Promiscuity	595	89	506
Inappropriate Sexual behavior	407	33	374
Sexual Harassment	232	24	208
Social Etiquette	417	97	320
Stealing	351	49	302
Total	6848	1182	5666

Table A13: Distribution of reasons (shame) across manually labeled clusters. A total of twenty-six clusters were generated with distance=5. Duplicates were removed for clustering. One cluster with generic reasons (such as phrases "lack of shame") was removed and two clusters with similar reasons (related to accountability) were merged. Finally, 24 clusters were considered. The total is slightly more than numbers in Table 3 since a reason could be mapped to multiple clusters.

Theme (Pride-related norms)	Total Samples	Hollywood	Bollywood
Achievement	332	174	158
Bravery	248	69	179
Doing the "right" thing	82	82	0
Duty	792	449	343
Ethnolinguistic Identity	148	7	141
Family Honor	263	77	186
Family Roles	356	156	200
Justice	255	109	146
Nation	216	57	159
Physical Appearance	106	49	57
Resilience	180	68	112
Self-identity	273	157	116
Son's Achievements	315	87	228
Wedding	120	23	97
Winning	411	205	206
Total	4097	1769	2328

Table A14: Distribution of reasons (pride) across manually labeled clusters. A total of fifteen clusters were generated with distance=5. The total is slightly more than the numbers in Table 3 since a reason could be mapped to multiple clusters

Theme	Statistic	p-value
Inappropriate Sexual behavior	5.0380	0.00001
Gender roles	3.8262	0.0006
Betrayal	3.2044	0.001
Illegal activities	2.8258	0.005
Disrespect	2.8284	0.005
Sexual Harassment	2.8358	0.005
Promiscuity	1.5553	0.1
Accusation	3.8411	0.0006
Stealing	1.6798	0.09
Parent-related	1.8961	0.06
Family norms	2.0813	0.04
Non-conformity	1.4724	0.1
Marriage-related	1.1817	0.2
Privacy-related	0.9518	0.3
Alcoholism	-0.2920	0.8
Immodesty	-0.6634	0.5
Disobedience	-2.1438	0.03
Lying/Deception	-2.6508	0.008
Cowardice	-2.7746	0.006
Incompetence	-3.5187	0.002
Social Etiquette	-3.3461	0.002
Harm	-4.5140	0.00009
Poverty	-4.9028	0.00002
Lack of accountability	-4.6312	0.00007

Table A15: Barnard Exact test with Yates correction for testing statistically significant occurrence of shame-related themes in Bollywood and Hollywood.

Theme	Statistic	p-value
Ethnolinguistic Identity	9.6185	0.0000
Son's Achievements	5.8025	0.0000
Bravery	5.0368	0.0000
Family Honor	4.7046	0.0000
Nation	5.1183	0.0000
Wedding	5.3898	0.0000
Resilience	1.4959	0.1370
Justice	0.1441	0.8963
Family Roles	-0.2560	0.8024
Physical Appearance	-0.6420	0.5223
Winning	-2.8913	0.0038
Achievement	-3.5425	0.0004
Self-identity	-4.9482	0.0000
Doing the "right" thing	-10.4936	0.0000
Duty	-8.5488	0.0000

Table A16: Barnard Exact test with Yates correction for testing statistically significant occurrence of pride-related themes in Bollywood and Hollywood.